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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,118	02/28/2001	Thomas Schulte	10191/1566	5238
26646	7590	06/27/2005	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004			DICUS, TAMRA	
			ART UNIT	PAPER NUMBER
			1774	

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/719,118

Applicant(s)

SCHULTE ET AL

Examiner

Tamra L. Dicus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14, 15 and 17-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14, 15 and 17-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12-07-00
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Cancellation of claim 16 is acknowledged.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 14-15, 17-19, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 3,700,857 to Brandes et al. in view of USPN 6,076,965 to Rosen et al.

Brandes discloses a method for manufacturing a temperature sensor comprising the steps of: forming a conductor track by a currentless deposition (see electroless plating in col. 3, lines 1-4) of a metal such as platinum and nickel (see col. 2, lines 24-68, col. 3, lines 15-55, and patented claims) (instant claims 1 and 19) onto the surface of a carrier by a subsequent thermal treatment (the coated particles are compacted, such as pressing and electrophoresis (see col. 2, lines 24-68, col. 3, lines 15+), and are heated to a temperature to effect sintering of the powders (see col. 3, lines 14 and 33-34)) wherein the carrier being powder is composed of metal oxide (electrically insulating refractory particles such as alumina (instant claim 18) (Brandes, FIG. 1, 12). These metal coated particles sited by Brandes inherently possess excellent electrical conductivity and heat.

Regarding claim 17, Brandes further describes and illustrates the use of a pair of electrodes in a laminated layer wound around the electrically insulating coated particles coated with a thin layer of electrically conductive material which will inherently allow the passage of

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current through the electrodes and may be applied to any shaped body (see col. 3 line 60-col. 4, line 3 and FIG. 2 and 3) (equivalent to laminated layer sensor).

Regarding claim 23, Brandes teaches the carrier includes adjacent particles by means of conductive necks and sintered (col. 3, lines 50-55).

Regarding claims 22 and 23 to the after reactionary causes after thermal treatment, the presently claimed temperature sensor would obviously have been present once the Brandes product is provided. Note *In re Best*, 195 USPQ 433, footnote 4 (CCPA 1977).

Brandes does not teach an evaluation device (instant claim 14) or loading the at least one conductor track with an alternating current voltage (instant claim 24).

However, Rosen teaches a sensor formed where an evaluation device (an electrical resistance measuring device 110) is connected to the sensing element (temperature sensor) via leads 106 (conductor tracks), made of the aforementioned metal oxide. See col. 7, lines 14-49 and Figure 4, depicting the leads to measure resistance as claimed in instant claim 14. Further meeting claim 24, in regards to the “loading the at least one conductor track with an alternating current voltage”, Rosen teaches at col. 7, lines 35-45, a circuit can be used to measure unknown temperature, which inherently provides alternating current.

Hence, it would have been obvious to one of ordinary skill in the art to modify the sensor of Brandes to include an evaluation device since Rosen teaches sensing elements connected to electrical resistance measuring devices for the purpose of providing connections in series as taught by Rosen at col. 7, lines 14-49. Also it would have been obvious to one of ordinary skill in the art to provide loading to a conductor track since Rosen teaches at col. 7, lines 34-45 using

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a circuit to provide the loading in order to measure unknown temperatures via resistance the circuit provides.

Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 3,700,857 to Brandes et al. in view of USPN 6,076,965 to Rosen et al., as applied to claim 14 above, and further in view of USPN 4,387,258 to Vadekar et al.

As provided above, Brandes in view of Rosen essentially teaches the claimed invention. Brandes does not disclose palladium nuclei being deposited as recited in instant claims 20 and 21.

However, Vadekar teaches selective hydrogenation using palladium on crystalline silica teaching it is known to provide a substrate with deposited palladium (inclusive of palladium nuclei) at col. 3, lines 34-68 via vapor or gas phase deposition, and reduction (initially deposited by reduction) because palladium crystallites (palladium used as seed crystals for deposition, claim 22) have excellent results from metal surface area measurements as the crystallite disperses well with metal.

Hence, it would have been obvious to one of ordinary skill in the art to modify the combination to further include palladium or their seeds for the purpose of providing have excellent results from metal surface area measurements as the crystallite disperses well with metal as taught by Vadekar at col. 3, lines 34-68.

Response to Arguments

3. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection. Applicant has amended the claims to positively recite that the carrier is a powder, and thus a new grounds of rejection is necessitated by amendment.

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4. Applicant argues Kaihara and Rosen do not describe, or even suggest, that the carrier exists as a powder nor a conductor track, therefore, Brandes is used again to teach carriers as powder in a temperature sensor.

Applicant argues although the Office Action asserts on pages 3 to 4 that electrical resistance measuring device 110 is connected to the sensing element (temperature sensor) via leads 106 (conductor tracks," it is respectfully submitted that the electrical measuring device 110 of Rosen does not measure and evaluate a temperature-dependent change in resistance of the so-called conductor tracks (i.e., leads) 106. Instead, Rosen discloses electrical measuring device 110 adapted to measure the electrical resistance through the sensing element (102)." Applicant has not provided a persuasive argument because Rosen explicitly teaches leads 106 are connected to 102 (col. 7, lines 20-35) to measure the electrical resistance and explicitly shows this connection in FIG. 4. One having ordinary skill in the art would expect the same temperature-dependent change resistance evaluation to occur since the same materials and devices are illustrated and taught by Rosen in connection and in series. Therefore, Rosen is still used to teach connected to a sensor to an evaluation device for the purpose of providing connections in series as taught by Rosen at col. 7, lines 14-49 and to provide loading to a conductor track since Rosen teaches at col. 7, lines 34-45 using a circuit to provide the loading in order to measure unknown temperatures via resistance the circuit provides.

Vadekar is still used to teach palladium nuclei being deposited as recited in instant claims 20 and 21, for the purpose of providing have excellent results from metal surface area measurements as the crystallite disperses well with metal as taught by Vadekar at col. 3, lines 34-68.

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A *prima facie* case has been established, and therefore the burden shifts to the Applicant to submit additional objective evidence of nonobviousness, such as comparative test data showing that the claimed invention possesses improved properties not expected by the prior art. Arguments of counsel cannot take the place of factually supported objective evidence. See, e.g., *In re Huang*, 100 F.3d 135, 139-40, 40 USPQ2d 1685, 1689 (Fed. Cir. 1996); *In re De Blauwe*, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984). Until the Applicant has convincingly argued or has provided evidence to the contrary, the rejections are maintained.

All other arguments to claims 14-24 are moot in view of the rejection and arguments presented above that support use of the cited references.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

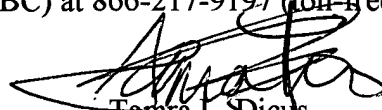
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is 571-272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tamra L. Dicus
Examiner
Art Unit 1774

June 16, 2005



RENA DYE
SUPERVISORY PATENT EXAMINER

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